Trends in self-inflicted deaths and self-harm in prisons in England and Wales (2001-2008): In search of a new research paradigm

Professor Charlie Brooker
John Flynn (Statistician)
Clare Fox (Research Assistant)

The Criminal Justice and Health Group
University of Lincoln
Lincoln LN6 7TS
UK

March 2010

Corresponding author:
Professor Charlie Brooker
The Criminal Justice and Health Group
University of Lincoln
Lincoln
LN6 7TS
UK

Tel: 01522 882000
Email: cbrooker@lincoln.ac.uk
Acknowledgements

Thanks are due to: Tunde Adeniji (Safer Custody and Offender Group) who helped us with data base construction; Keith Waters and Carl Finch (both East Midlands Development Centre) and Kimmett Edgar (Prison Reform Trust) who expertly read drafts of the paper; and all other colleagues, including Dean Maxwell-Harrison, who also gave us helpful feedback on early drafts of this paper.
Introduction

Whilst Durkheim, the founding father of social science, believed that suicide could be explained by social phenomena, that is, broad social, cultural and economic factors, he summarised the unique tragedy of a suicide in the following manner:

‘Each victim of suicide gives his act a personal stamp which expresses his temperament, the special conditions in which he is involved, and which, consequently, cannot be explained by the social and general causes of the phenomenon’ (Durkheim, 1951)

Durkheim’s main interest was in explaining the lack of social cohesion in society, i.e. its degree of integration. He used suicide rates as a proxy measure for the weakness of social bonds in any particular group. No one would dispute that offenders, whether in prison or elsewhere in the criminal justice system, are an alienated group where it would be predicted that self-inflicted deaths (SIDs) rates are higher than for the general population. This paper will examine recent trends in SIDs and self-harm in English and Welsh prisons and discuss the implications of such data for future research across the whole offender pathway in England and Wales.

Policy development

The rate of SID in prison per 100,000 is high when compared to the general population as Figure 1 demonstrates. Nonetheless, the three year moving average of these rates has been reducing overall year on year for the last six years to 2009 and to an extent this can be explained by the policy focus in this area. Self-harm has also been a significant issue in prisons. Meltzer et al (2002) examined the prevalence of non-fatal suicidal behaviour in prisons and found that 7% of male sentence prisoners and 10% of female sentenced prisoners self-harmed during their current sentence. Among the sentenced male population, prevalence was highest in Young Offenders Institutions (10%), local (9%) and dispersal (9%) prisoners. Prevalence of self-harm within the sentenced female estate ranged from 10-13%.

The seminal publication in this area was the thematic review – ‘Suicide is Everyone’s Concern’ - by HM Inspectorate of Prisons published in May, 1999.
Figure 1: A comparison of SID/Suicide rates in prisoners in England and Wales and the general population: 1998-2008

Suicide rates in England & Wales

A year later the Prison Service commissioned a review of the management of self harm and SIDs in prisons which reported in 2001. As a consequence, a number of initiatives were launched during the period between 2001-2004 including: the establishment of the Safer Custody Policy group; new SIDs screening and care planning systems (Assessment, Care in Custody and Teamwork [ACTT]); better integration with health care; more comprehensive peer support structures; and revised standards for SIDs and self-harm including environmental risk assessments (for example, ligature points).

Alongside these improvements, prison healthcare had been transferred to the Department of Health which itself was addressing issues related to mental health in the criminal justice system. For example, prison mental health in-reach teams were introduced in 2002 (the equivalent of community mental health teams in the community) and the National Institute for Mental Health (NIMHE) began to provide mental health awareness training for prison officers (Brooker & Sirdifield, 2006). A structured screening tool was also introduced for healthcare staff to use at reception to prison which included items on mental health (Gavin et al, 2003). All prison mental health initiatives were to be seen as part and parcel of The National Service Framework for Mental Health (Department of Health, 1999), designed for the general population, but which included targets for suicide reduction.

It can be seen that in a five year period, 1999 to 2004, a series of major policy initiatives were introduced for the reduction of SIDs and self-harm in prisons which sprang, to a large extent, from the thematic review of suicide and self harm reported by the Chief Inspector of Prisons in 1999.

1Sources:
Research on prison SID and self-harm

In the context of Durkheim’s earlier observation, most research on suicide and self-harm focuses on either individual or environmental factors.

**Individual Factors**

It has been suggested that there are five main categories of prisoner with a higher risk of committing SID (Liebling et al, 2005; Williams, 2001):

- Those with a formal history of mental illness
- Those serving longer, sometimes indeterminate, sentences (especially sex offenders and those who have committed violent crimes such as murder)
- Those with poor coping skills who are often younger with a history of self-harm.
- 75% of prisoners who kill themselves have a history of substance misuse.
- Those whose early life involves multiple-family breakdown characterised by loss, abandonment and hurt.

Risk of SIDs in prison is also associated with other factors. SIDs is often attempted within the first twenty-fours of a sentence commencing (McKee, 1998). Attempts of SIDs are also more common amongst those with previous convictions who have spent lengthy periods in custody (Dooley, 1990; Liebling, 1992). Although women are more likely to self-harm in prison, men are more likely to succeed with a SIDs attempt (Dooley, 1990).

**Environmental Factors**

It is clear from a series of reports from Her Majesty’s Prison Inspectorate (see for example, Annual Report 2007-8) that there are clear environmental factors associated with SIDs in prisons. It is still the case, for example, that a disproportionate number of SIDs occur in local prisons. The risk of SID risk is also higher in prisons where prisoners are kept in single cells with little association or meaningful activity. Prisoners held in segregation cells are also at particular risk. The most common method for a SID in prison is asphyxiation with bedclothes attached to cell fittings. The ease with which such ligature points can be identified by a prisoner intent on killing themselves is clearly a further environmental risk.

Perhaps the most useful research synthesis of risk factors is to be found in a recent systematic review of risk factors associated with SIDs in prisons (Fazel et al, 2008). This important study concluded that:

‘Several demographic, criminological, and clinical factors were found to be associated with suicide in prisoners, the most important being occupation of a single cell, recent suicidal ideation, a history of attempted suicide, and having a psychiatric diagnosis or history of alcohol use problems. As some of these associations included potentially modifiable environmental and clinical factors, there is scope for targeting these factors in suicide prevention strategies for individuals in custody’
Method

Data Set
A longitudinal dataset from 1999-2008 for 141 prison establishments was compiled from secondary data from the Ministry of Justice, obtained through the National Offender Management Service (NOMS) in January 2010. Three parameters were of importance:

- Population (Average mid-year snapshot at 1 June) for 2001-2008
- SIDs (apparent self-inflicted deaths by establishment) for 1999-2008, (n=126)

PECS establishments (Prisoner Escort and Custody Services) were not included in the analysis due to the quality of data available. PECS is a unit within the NOMS Corporate Services Directorate whose data was removed from the study as no population data were available. There was, however, a record of 10 SIDs, whilst self-harm incidents ranging from 277-448 per annum occurred over the timescale from 1999.

Definition of Prison Types
The data from the Ministry of Justice were amalgamated as shown in Table 1:

Table 1: Frequencies and definitions of groups for analysis

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Categories of Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Security</td>
<td>8</td>
<td>High Security Local, High Security</td>
</tr>
<tr>
<td>Cat B</td>
<td>27</td>
<td>Category B, Male Category B Local (Adults)</td>
</tr>
<tr>
<td>Cat C</td>
<td>38</td>
<td>Category C/Immigration Removal Centre</td>
</tr>
<tr>
<td>Cat D</td>
<td>11</td>
<td>Category D, Male Open, Semi-open</td>
</tr>
<tr>
<td>Male adult &amp; YOI</td>
<td>19</td>
<td>Male Category B Local (with young offenders)</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>Female closed, Female Local, Female Open</td>
</tr>
<tr>
<td>YOI &amp; Juveniles</td>
<td>21</td>
<td>Male closed YOI, Male Juvenile, Male Open YOI, YO/Juvenile, YOI/Adult</td>
</tr>
<tr>
<td>Male and Female</td>
<td>1</td>
<td>Mixed Local</td>
</tr>
<tr>
<td>Immigration Removal Centre</td>
<td>2</td>
<td>Immigration Removal Centre</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>141</strong></td>
<td></td>
</tr>
</tbody>
</table>

This paper focuses specifically on six categories of prison: High Security (n=8), Category B (n=27), Category C (n=38) and Men and YOIs (n=19) and then prisons for YOIs (n=21) and Female (n=14). In total this represented 127/141 prisons in England and Wales or 90% of the total.

Data Analysis
The Ministry of Justice advise that SIDs numbers are best interpreted as rates per 100,000 although no similar guidance is given on self-harm rates. However, to facilitate comparison of rates for self-harm and SIDs over the time-scale, and using three-period moving
averages to assess the ‘trend’, self-harm data are reported here as rates per 1,000 in order to facilitate comparison. Trends in the data are summarised for self-harm and SIDs by the three-period moving average. So, the trend for:

- SIDs is assessed for 2003-2008 using data from 2001-2008

Results

SIDs and self-harm in all prisons

Overall, the three year moving average demonstrates that the trend in prison SIDs is decreasing whilst self-harm in prison is unchanged (see Fig 2). However, this pattern changes when comparable rates are examined by each type of prison, as the following figures illustrate.

Fig 2: Three year moving averages of prison self-harm and SIDs rates in England and Wales: 2001-2008

Female estate

Self-harm is reported as rates per 100 prisoners so as to permit easier comparisons of SIDs to self-harm. Figure 3 shows a clearly decreasing trend year-on-year in SIDs rates per 100,000, from 212 in 2004 to 91 in 2008. This 57% decrease can be compared to the trend in self-harm rates which has recently increased considerably in 2008 to 259 per 100 prisoners.

2It is recognised that the recording of data on self-harm in prisons is unreliable and that staff reporting varies from prison to prison
Figure 3: Trends in SIDs and self-harm in the female estate: 2001-2008

Note: self-harm is presented as rate/100.

High Security

Figure 4: Trends in SIDs and self-harm in High Security prisoners: 2003-2008

In High Security prisons there was sharp increase of 116% in the SIDs rate between 2003-2004 and a slow reduction between 2004-2008. Nonetheless, SIDs is still higher in 2008 than it was in 2003. Self-harm for the years in which data is available is increasing year-on-year.
Category B

Figure 5: Trends in SIDs and self-harm for Category B prisoners: 2003-2008

There is a clear reduction year-on-year in SIDs and self-harm rates in Category B prisoners.

Category C

Figure 6: Trends in SIDs and self-harm in Category C prisoners: 2003-2008

There is little alteration in the trend for the low SIDs rate for Category C prisoners which has hovered consistently under 50 per 100,000, but there has been a large decrease in rates of self-harm by 62% from 2004-2008.
Male adult and YOI’s

Figure 7: Trends in SIDs and self-harm in the mixed young male offender and adult estate: 2003-2008

There has been no change in the trend for the self-harm rates but a decrease in the trend for SIDs rates from 2003-2006 which has remained constant at about 150.

YOI category

Figure 8: Trends in SIDs and self-harm in young offenders: 2003-2008
It is clear that there is a significant reduction in the trend in the SIDs rate in the Young Offender population. The trend consistently hovered above 50 then sharply decreased by 68% from 2007-2008, but there is a continuing increase in the trend for self-harm rates to nearly 250 per 1,000.

The results overall are summarised in Table 2 where additional information is added in terms of the overall (or average) figures for both SIDs and self-harm in each type of prison. For example, it is useful to know that whilst in High Security and Category B prisons there have been trends to reduce SIDs in prisons, both figures are still higher than the average or overall moving average.

A summary of these data is provided for each prison type in Figure 9 where percentage increases in the trends in self-harm and SIDs are mapped. Thus, High Security prisons recorded increases in the trends in both SIDs and self-harm. No other category was in this ‘negative-negative’ area of the graph. Categories B and C both achieved decreases in the trends in self-harm and SIDs. The 3 remaining categories (Female estate, Male & YOI, and YOI) all achieved decreases in the trend in SIDs rates but also an increase in rate of self-harm.

**Figure 9: Percentages changes in trends in prison SIDs and self-harm: 2003-2008**
<table>
<thead>
<tr>
<th></th>
<th>High Security (n=8)</th>
<th>Category B (n=27)</th>
<th>Category C (n=38)</th>
<th>Female (n=14)</th>
<th>YOI’s (n=21)</th>
<th>Male adult and YOI (n=19)</th>
<th>TOTAL (n=141)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIDss per 100,000 (2003-2008)</td>
<td>21% increase (always higher than overall trend)</td>
<td>23% decrease (always higher than overall trend)</td>
<td>7% decrease (always lower than overall trend)</td>
<td>48% decrease (always higher than overall trend)</td>
<td>73% decrease (always lower than overall trend)</td>
<td>31% decrease (always higher than overall trend)</td>
<td>27% decrease</td>
</tr>
<tr>
<td>Variation in Trend</td>
<td>Trend 07-08 having seen decrease 04-07</td>
<td>Decreasing trend all years</td>
<td>Static trend</td>
<td>Decreasing trend and currently close to overall trend</td>
<td>Static trend but sharp decrease 07-08</td>
<td>Static trend 06-08</td>
<td>Steady decrease to 90 per 100,000</td>
</tr>
<tr>
<td>Self-harm per 1,000 (2006-2008)</td>
<td>20% increase (always lower than average)</td>
<td>12% decrease (always lower than average)</td>
<td>49% decrease (always lower than average)</td>
<td>11% increase (always higher than average)</td>
<td>4% increase (always lower than average)</td>
<td>1% increase (always lower than average)</td>
<td>1% increase</td>
</tr>
<tr>
<td>Variation in Trend</td>
<td>Rapidly increasing trend</td>
<td>Decreasing trend</td>
<td>Sharply decreasing trend</td>
<td>Increase to nine times higher than average</td>
<td>Increasing trend</td>
<td>Static trend</td>
<td>Static trend to 290 per 1,000</td>
</tr>
</tbody>
</table>

Table 2: A description of trends in SIDs and self-harm in English and Welsh prisons: 2003-2008
Discussion

The main aim of this paper has been to re-analyse self-harm and SIDs rates by the type of prison in which they occur. It is likely that a stream of joint Ministry of Justice/Department of Health policy initiatives, over the last decade, have helped to reduce the SIDs rate in prisons overall, but it is also clear from Table 2 that the impact has been variable and that the rate of self-harm has remained at an unacceptably high level in all prisons.

Our analysis demonstrates that the SIDs rate in High Security prisons has actually increased and in Category B, Female and Male Adult/YOI prisons it remains higher than average. Self-harm, meanwhile, has increased in High Security, Female and YOIs. In Female prisons the self-harm rate is almost nine times higher than average. Such findings paint a less convincing picture than one simple overall presentation of the rates for the prison population and point to the need for a deeper understanding of the possible reasons for such behaviour and more effective and targeted interventions.

The findings from the systematic review of factors related to SIDs in prisons were presented earlier (Fazel et al, 2008). This review found that the most significant risks were: occupation of a single cell; recent suicidal ideation; a history of attempted SIDs; having a psychiatric diagnosis and/or a history of alcohol use problems. In a recent evaluation of prison mental In-reach services (Shaw et al, 2008) in High Security and B prisons, 9% of the Prison Mental Health In-reach team’s caseload comprised those with a major depressive disorder alongside ‘suicidality’ as measured by the Beck SIDs Ideation Scale. Prison Mental Health In-reach teams, alongside the introduction of ACTT in prisons, are likely to have contributed to the overall reductions in SIDs in prisons, having been introduced in 2003 when the downward trend in the overall rate commenced (see Figure 2). However, it is also clear, given the scale of mental health problems that exist in prisons, that In-reach teams are hugely under-resourced (Brooker et al, 2009). Such teams receive about one-third of the funding required to achieve service delivery equivalent to community-based mental health services in the general population. If equivalence for prison mental health services were to be obtained, what further impact on SIDs and self-harm rates might be made?

First, we would argue that the key issues to tackle for targeted additional resources are as follows:

- The increased SIDs and rapidly increasing self-harm rates in High Security prisons
- The higher than average SIDs rates in Category B and Male Adult/YOI prisons
- The higher than average SIDs rates and very high rates of self-harm in Female prisons
- The increasing trend for self-harm in YOIs

\(^3\)Male adult prisoners (those aged 21 or over) are given a security categorisation soon after they enter prison. These categories are based on a combination of the type of crime committed, the length of sentence, the likelihood of escape, and the danger to the public if they did escape. High Security prisoners are those whose escape would be highly dangerous to the public or national security. In 2008 there were 5,828 such prisoners who comprised 7% of the total prison population.
Therefore, there are a range of clinical factors to address including suicidal ideation, a history of attempted SIDs, possession of a psychiatric diagnosis and a history of substance misuse. Research undertaken in the United States indicates that this constellation of clinical issues is highly likely to indicate a history of either physical or sexual abuse (for example, Wolff & Shi, 2008). In a large sample of 7,528 inmates, Wolff and her colleagues demonstrated that nearly 75% of prisoners with a mental disorder had experienced childhood trauma. Self-destructive behaviour and suicidal ideation in adulthood is strongly associated with traumatic childhood experiences (Brodsky et al, 2001; Dervic et al, 2006). However, Wolff’s study goes further and shows that the experience of being bullied is significantly higher in the sub-group of prisoners with a mental disorder compared to prisoners without such a diagnosis. Other recent research has criticised traditional research on SIDs in prisons. Marzano et al (2009) argue, for example, that there are serious limitations to studies that draw solely on clinical and prison records and forward the case for the examination of ‘near-fatal’ clinical self-harm incidents using a case-control methodology. Certainly, one of the case study vignettes they present reveals causal factors that are significant:

‘CD was 27 when he attempted to take his own life in custody. A long-term drug user, he had served several short-term sentences for stealing, so many that he reported not being “fazed” by prison life. Three weeks into his four month sentence, a routine blood test revealed that he was suffering from Hepatitis C. As he no longer injected drugs, CD deduced that he had contracted the disease when he was raped by another prisoner on an earlier sentence.

Scared and shocked by this unexpected news, he also began to experience flashbacks of the sex attack, which he – and his drug use – had previously managed to “block out of [his] mind”. Two weeks later, when his diagnosis was confirmed, CD wrote a suicide note to his family, packed away all of his possessions, and tied a ligature to the window bars in his cell. By chance, a prison officer walked past CD’s cell just as he was beginning to lose consciousness, and was able to rescue him. CD had never previously self-harmed, attempted suicide or even contemplated doing so..........’

(Marzano et al, 2009 – Case Study 2)

A review of the relationship between bullying and SIDs has also been reported (Blauuw, 2010). In a large study involving 240 prisoners Blauuw shows that not only does SID relate directly to bullying but also to the severity of that bullying. Blauuw concludes that there are important implications for prison staff including the need to be sensitive to bullying practices including their own behaviour which itself could be interpreted as coercive. Prison staff should also be aware that prisoners can be bullied by people who do not have direct access to them, i.e. powerful outsiders.

Such research findings also have a relevance, alongside the other multiple factors outlined, for improved and targeted interventions to reduce SIDs and self-harm in prisoners in England and Wales.
First, there is a need for well trained (and greater numbers) of Prison Mental Health In-reach staff and prison psychologists to provide integrated trauma-related treatment in prison.

Second, there are practical issues to address in terms of ensuring that vulnerable, mentally-ill prisoners, who are more likely to be bullied, are kept safe from the perpetrators of such acts. This entails a high level of vigilance on the part of prison officers and better training to recognise the characteristics of those who are likely to be more at risk. The development of this type of training, so-called STORM training, has been funded by the Safer Custody Group (Her Majesty’s Prison Service) and its evaluation has been described (Hayes et al, 2008). However, the wider implementation of the training has been thwarted by funding issues.

Third, whilst significant amounts of investment have been into prison drug treatment programmes, the same cannot be said for alcohol treatment programmes where a recent thematic review by Her Majesty’s Inspectorate of Prisons (2008) concluded that:

‘On entry to prison, alcohol problems are not consistently or reliably identified, nor is the severity of alcohol withdrawal symptoms. Some establishment drug coordinators’ estimates of the extent of the problem in their prison appeared to be considerably at odds with our survey findings. Few prisons had an alcohol strategy based on a current needs analysis, and even where analyses had been carried out, some were likely to underestimate need’ (p 5).

Finally, more research is needed to examine the relationship between childhood trauma, mental health disorders, and SIDs and self harm in the English prison system. Sadly, unlike the United States, there is no such tradition in England. An enhanced understanding of these phenomena and their complex inter-relationship will help to inform the development of more effective interventions.
Conclusion

Rates for SIDs and self-harm were analysed in English and Welsh prisons. Whilst the overall reductions in SIDs are to be welcomed, the data demonstrate that there is variation in progress with SIDs reduction across the different types of prison. SIDs is increasing in High Security prisons. Self-harm is increasing dramatically in the Female estate and all other types of prison and remains unacceptably high.

Those that commission prison mental health services in Primary Care Trusts must recognise the need for targeted interventions that acknowledge three major issues:

- the likely childhood trauma experienced by mentally disordered prisoners
- a better recognition of the important role played by victimisation and intimidation in self-harm and SIDs
- greater investment in alcohol treatment programmes in prison.

Whilst prison mental health In-reach team members work try to intervene with the impact of prisoner's abusive histories every day they are badly equipped with the skills and resources to work constructively with such issues.
References

Blauuw, E (2010) Bullying and suicides in prisons Chapter 3 in Bullying among prisoners: innovations in theory and research (ed: Jane L Ireland) In press


HM Inspectorate of Prisons (1999) Suicide is everyone’s concern: a thematic review London, Home Office


**Websites**

